

ATIS Data Collection Guidelines Workshop

Who are ATIS Customers?

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Introduction

- ◆ External Factors Influence Customer Demand
- ◆ Using Attitudes and Values to Segment the ATIS Market
- ◆ Segmenting MMDI Customers
- ◆ ATIS Traffic Customer Characteristics
- ◆ ATIS Transit Customer Characteristics
- ◆ Conclusions

Sources

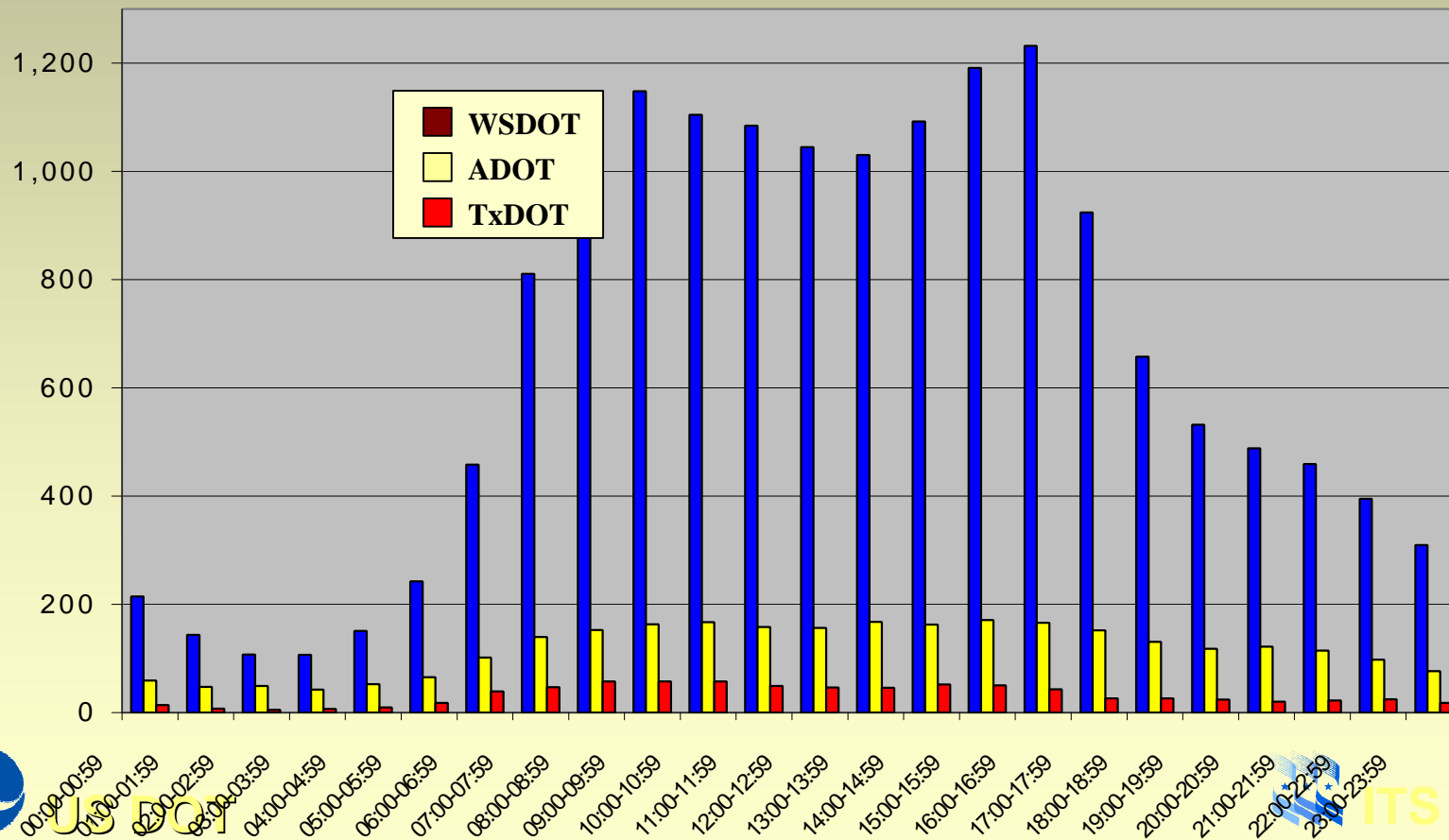
- ◆ ITS User Acceptance research Program, 1995-99
- ◆ ITS MMDI Customer Satisfaction Evaluation, 1997-99
 - Smart Trek (Seattle)
Focus groups and surveys with traffic and transit web site users, PSRC Regional Traveler survey (1997), TransitWatch®, Traffic TV (cable), and WebTrends™
 - AZTech (Phoenix)
Focus groups with traffic web site users, TrafficCheck (cable TV), and WebTrends™
 - TransGuide (San Antonio)
Focus groups with drivers, WebTrends™
- ◆ Web-based survey respondents were self-selected, and may not be representative of the user population.

External Factors Influence Customer Demand

The regional traffic context

- ◆ Texas Transportation Institute 1999 Travel Rate Index (TRI) measures congestion delay during peak traffic hours
 - Seattle (2nd in nation) 1.43
 - Phoenix (16th) 1.28
 - San Antonio (46th) 1.15
- ◆ Constrained alternate routes
- ◆ Limited build-out options
- ◆ Frequent unpredictable traffic events

Comparative Web Activity by Hour: Seattle, Phoenix, San Antonio (December 1998, All Days)



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External Factors Influence Customer Demand (*cont.*)

ATIS service quality

- Accuracy, timeliness, personal relevance...

Individual trip characteristics

- Expectation of congestion, time constraints

Values and attitudes of the user

- Predisposition measured by attitudes toward time, technology, travel, and information

External Conditions Related to ATIS Use by *Transit* Riders

Fewer deployments, fewer evaluations, but perhaps related to:

- Quality of ATIS information
- Convenient access to the information
- Complexity of transit system
- Type of trip
- Rider characteristics

Using Attitudes and Values to Segment the ATIS Market: **Methods**

- ◆ Attitudes and values (A&V) statements related to ATIS use, developed from focus groups with drivers and transit riders
- ◆ Statements included in regional travel survey of Puget Sound households (~4,000 respondents)
- ◆ Responses are representative of residents in region
- ◆ Factor and cluster analysis produced 8 distinct segments according to values, attitudes, behavior.
- ◆ A&V statements included in all MMDI surveys



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ATIS Customer Segments

- ◆ Control Seekers
 - 19% of the “population”
- ◆ Web Heads
 - 16% of the “population”
- ◆ Low-tech, pre-trip information seekers
 - 22% of the “population”
- ◆ Mellow Techies
 - 6% of the population

ATIS Customer Segments

◆ **Control Seekers** (*19% of “population”*)

- Budget conscious
- Plan ahead
- Accessible at all times
- Want to predict travel time
- Want information (related to control)
- Computers at home, laptops, mobile phones
- Slightly more female
- Average income

ATIS Customer Segments (cont.)

◆ **Web heads** (16% of “population”)

- Very high use of computers and Internet
- Not notable for use of mobile media
- Younger, male, slightly wealthier
- Average household size
- Makes more trips and of slightly longer distance
- Listen to radio traffic reports, but dissatisfied with quality
- Top priority for ATIS: Up-to-date information!



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ATIS Customer Segments (cont.)

◆ **Low-tech, pre-trip information seekers** (22% of “population”)

- Plan ahead
- Make trip changes pre-trip, rarely en-route
- Worry a lot about being late
- Prefer to do things as always
- Don't like to take risks with new products
- Less comfortable with technology
- Older and male

ATIS Customer Segments (cont.)

◆ **Mellow Techies** (6% of “population”)

- Few currently use ATIS
- Have little concern about being late
- High interest in and use of computers and Internet
- Use computers to get information
- Prefer new ways of doing things
- Will ask directions

Segmenting MMDI Customers

- ◆ The majority of ATIS web site users are “control-seekers” and “web-heads”
 - 40% control-seekers, 26% web-heads for WSDOT traffic
 - 24% control-seekers, 39% web-heads for Metro Online
 - 48% web-heads among frequent users of Metro Online
- ◆ “Web-heads” don’t use non-web applications, and control-seekers do
 - 37% control-seekers vs. 14% web-heads for TransitWatch®
 - 37% control seekers vs. 15% web-heads for Seattle Traffic TV
 - 33% control-seekers vs. 9% web heads for Tempe TrafficCheck

Segmenting MMDI Customers (cont.)

- ◆ For non-web-based services, “low-tech, pre-trip information seekers” constitute a significant user group
 - 15% of TransitWatch®
 - 17% of TrafficCheck (21% of frequent viewers)
 - 12% of Traffic TV (20% of frequent viewers)
- ◆ “Mellow techies” are a consistent user group
 - 14% of WSDOT web site
 - 11% of Metro Online
 - 9% of TransitWatch®
 - 7% of TrafficCheck
 - 13% of Traffic TV

ATIS Traffic Customer Characteristics

In general, ATIS traffic customers are:

- ◆ Employed commuters
- ◆ Drive more of their miles on freeways
- ◆ Have route and time flexibility
- ◆ Lose more drive time to congestion
- ◆ Better educated than average
- ◆ Have slightly higher incomes
- ◆ Prime working age (concentrated 26 to 46)
- ◆ Slightly more male

ATIS Traffic Customer Characteristics

More frequent users experience much greater congestion delay



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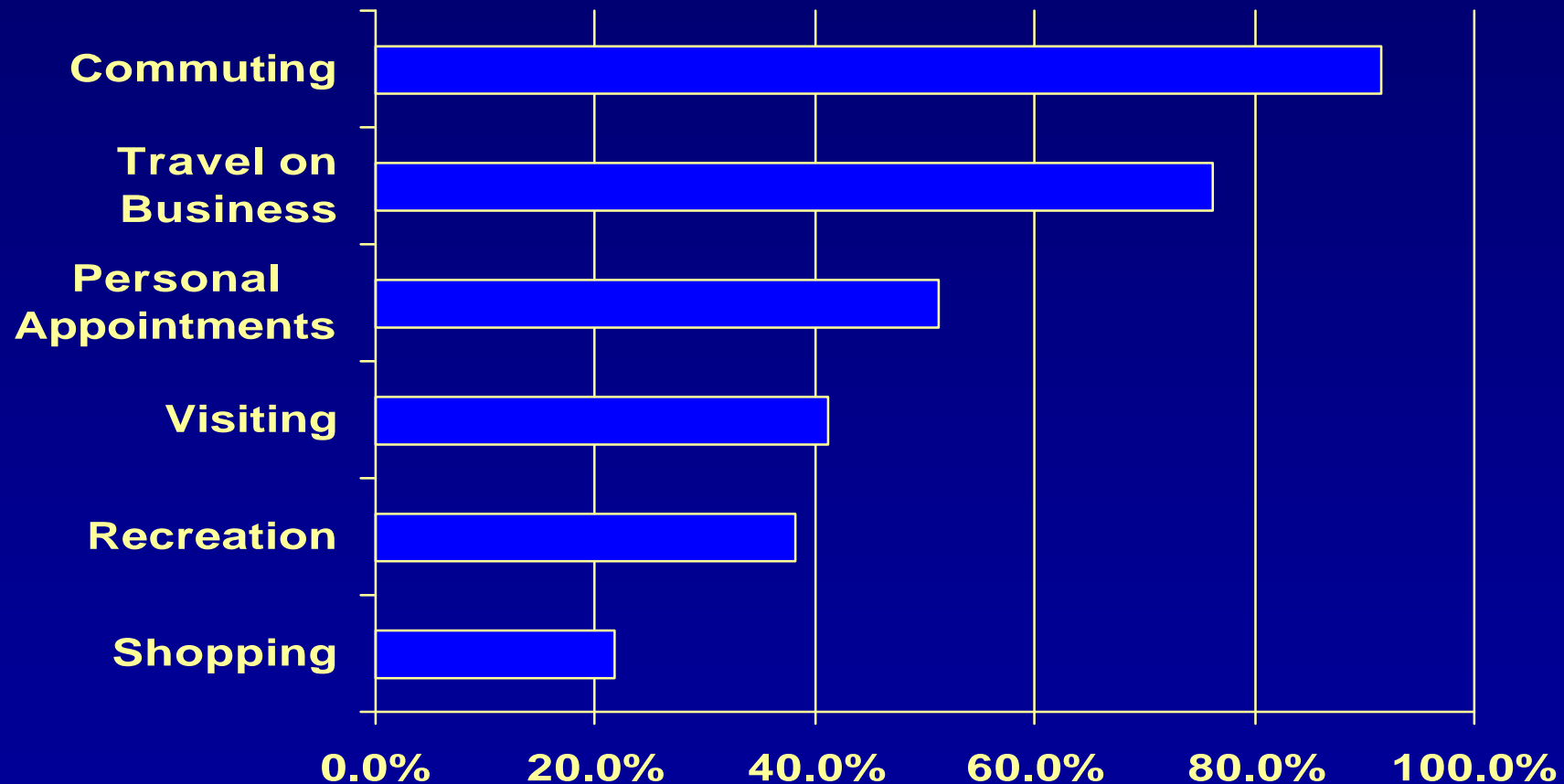
ATIS Traffic Customer Characteristics

- ◆ Different media attract different customers
 - Web users are more likely to have mobile phones, pagers, Internet at home and at work, and PDAs.
 - Web users are more concerned with predicting time
 - Web users like the media, especially web-heads
 - By comparison, TV customers are older, less educated, fewer computer users, lower income (*may also be related to other factors*)

ATIS Traffic Customer Characteristics

Type of trip influences use

(Taken from WSDOT on line survey, May 1999)



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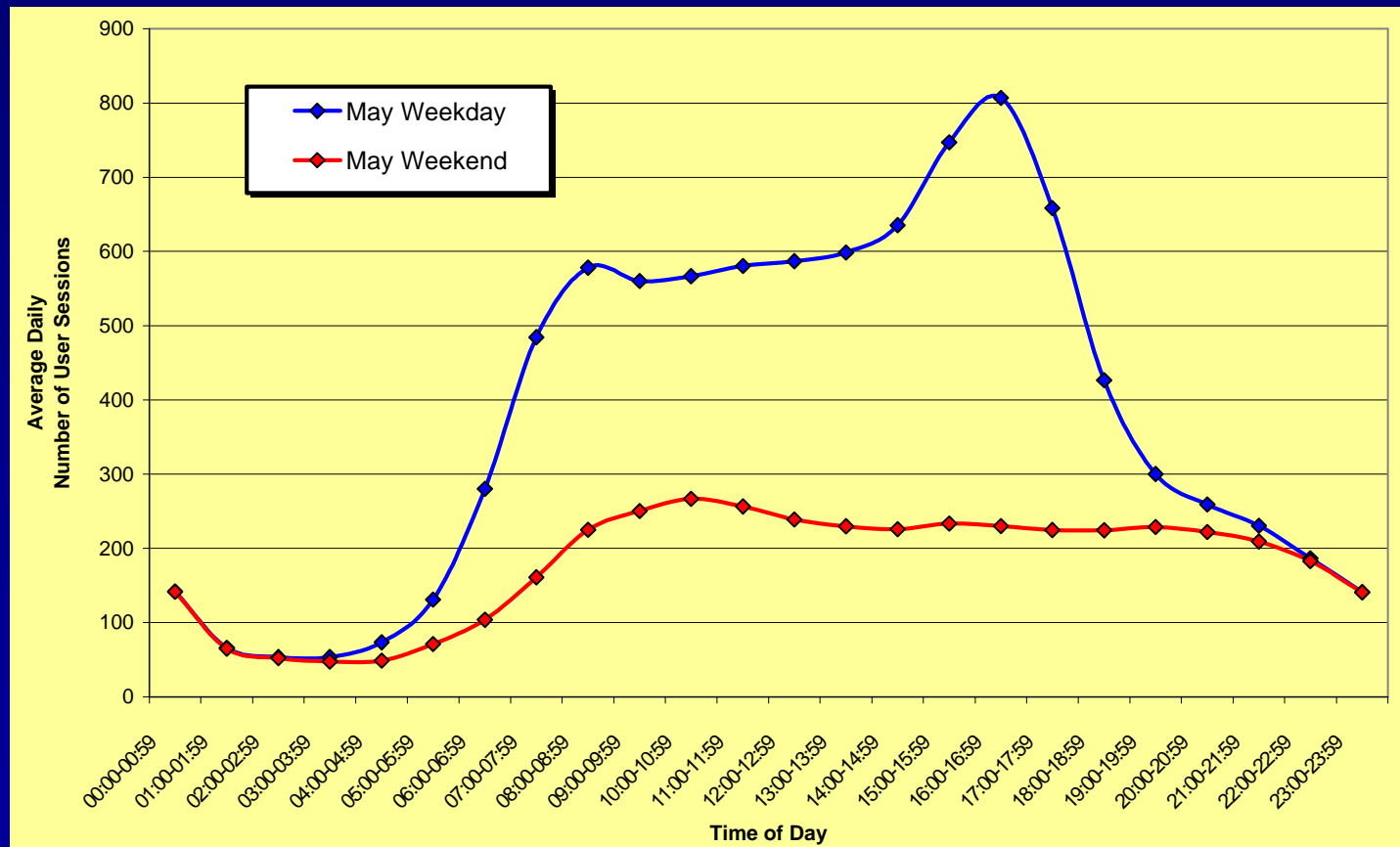


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ATIS Traffic Customer Characteristics

Time of trip influences use

(Taken from WSDOT using WebTrends™, May 1999)



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TRANSIT: TransitWatch® and Metro Online

- ◆ MMDI evaluated two ATIS transit projects in Seattle
 - ***TransitWatch®***: Electronic display monitors providing real-time bus information at two major transfer centers
 - ***Metro Online***: Official website of King County Metro offers route planning, schedule and some limited real-time information



ATIS Transit Customer Characteristics

◆ Metro Online customers are:

- younger than average riders, more educated, and have access to the Internet at home and work or school.
- Their income, longevity and intensity of bus use, and access to a car, is similar to the average rider.
- 39% are web-heads, 24% are control-seekers, and 11% are mellow-techies

◆ TransitWatch® customers are:

- Slightly younger, more educated, more computer users, more intensive users of the bus.
- Less flexible for work arrival times, more impatient, critical of bus service, interested in information, and want to be in touch at all times.
- 37% control-seekers, 15% low-tech, 14% web-heads



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Conclusions

- ◆ Market demand for ATIS traffic is a function of regional factors more so than individual characteristics.
- ◆ Current ATIS transit findings suggest that customer characteristics are more influential in predicting demand (*although system complexity as a factor remains unexamined*)
- ◆ ATIS traffic customers are employed commuters, 26-46 years of age, with time and route flexibility.



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Conclusions (cont.)

- ◆ They want to control their time, and be accessible at all times.
- ◆ They own and use computers (home and job), the Internet (home and job), and mobile telemedia.
- ◆ ATIS transit customer profiles vary by delivery media, but in all settings want more information and greater control.

Conclusions (cont.)

- ◆ Control-seekers dominate customer demand for all ATIS services, followed by Web-heads.
- ◆ Web-heads may be single-media customers; they are very engaged by online services.
- ◆ Low-tech information seekers represent a large customer segment who prefer television to advanced media.

Thank you

